

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|-------|---|---|------------------|---------|------------------|
| L1 | 51 | trifluoromethyl adj2 phosphine | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/26 09:11 |
| L2 | 27 | (bis di) adj trifluoromethyl adj2 phosphine | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/26 09:13 |
| L3 | 1 | (bis di) adj trifluoromethylphenyl adj2 phosphine | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/26 09:13 |
| L4 | 25 | (bis di) adj trifluoromethyl adj phenyl adj2 phosphine | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/26 09:16 |
| L5 | 43158 | fluoroalkyl perfluoroalkyl trifluoromethyl and (luminescent electroluminescent) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/26 09:20 |
| L6 | 1711 | (fluoroalkyl perfluoroalkyl trifluoromethyl) and (luminescent electroluminescent) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/26 09:20 |
| L7 | 37 | (fluoroalkyl perfluoroalkyl trifluoromethyl) near12 (preferred solubility improv\$5 better shorter emission) and (luminescent electroluminescent) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/26 09:21 |
| L11 | 2 | "20020048689" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/26 11:02 |
| S1 | 3 | "20020182441" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/26 11:02 |

| | | | | | | |
|-----|------|--|---|----|-----|------------------|
| S2 | 1 | 2000wo-us32511 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 16:58 |
| S3 | 2 | 2001wo-JP10487 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 15:43 |
| S4 | 3 | "20030068526" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 16:57 |
| S5 | 0 | 2000WO-US70655 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 16:58 |
| S6 | 0 | 1999WO-US70655 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 16:58 |
| S7 | 0 | 2000wo-us70655 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 16:59 |
| S8 | 1 | 2000wo-us12946 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 17:37 |
| S9 | 2 | "20030054198" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 18:18 |
| S10 | 1026 | trifluoromethylpyridine | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 18:18 |
| S11 | 30 | fluorophenyl adj2 trifluoromethylpyridine | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/25 18:19 |

CAS/STN FILE 'REGISTRY' ENTERED AT 14:20:01 ON 06 JUN 2005

L1 STRUCTURE UPLOADED

L2 0 SEA SSS SAM L1

FILE 'CAPLUS, MARPAT, MARPATPREV, REGISTRY' ENTERED AT 14:20:50 ON 06 JUN 2005

L3 0 SEA SSS SAM L1

L4 0 SEA SSS SAM L1

FILE 'STNGUIDE' ENTERED AT 14:21:20 ON 06 JUN 2005

FILE 'HCAPLUS' ENTERED AT 14:21:44 ON 06 JUN 2005

L5 1 S US20040191959/PN

L6 SEL PLU=ON L5 1- RN : 42 TERMS

L7 6414 S L6

L8 1 S L5 AND L7

FILE 'STNGUIDE' ENTERED AT 14:22:07 ON 06 JUN 2005

FILE 'REGISTRY' ENTERED AT 14:24:52 ON 06 JUN 2005

L9 1 S 387827-64-7

 E PYRIDINE/CN

L10 1 S PYRIDINE/CN

 E PHENYLPYRIDINE/CN

L11 1 S PHENYLPYRIDINE/CN

L12 STRUCTURE UPLOADED

L13 50 SEA SSS SAM L12

L14 3605 SEA SSS FUL L12

L15 0 S L14 AND IR/ELS

L16 600 S L14 AND CL/ELS

L17 2841 S L14 AND O/ELS

L18 0 S L14 AND COMPLEX

L19 213 S IR/MF

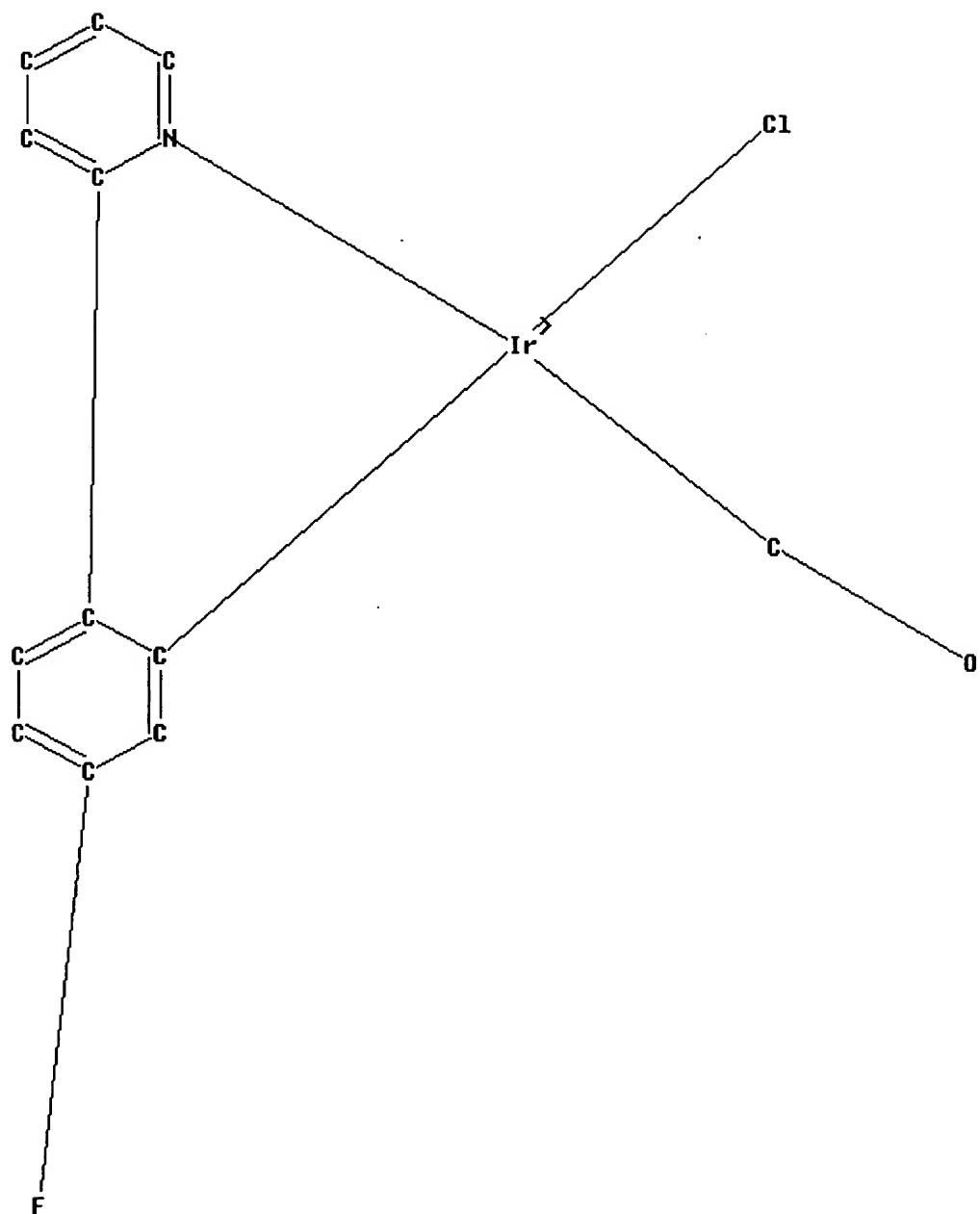
FILE 'HCAPLUS' ENTERED AT 14:30:31 ON 06 JUN 2005

L20 49 S L14 AND (L19 OR IRIDIUM)

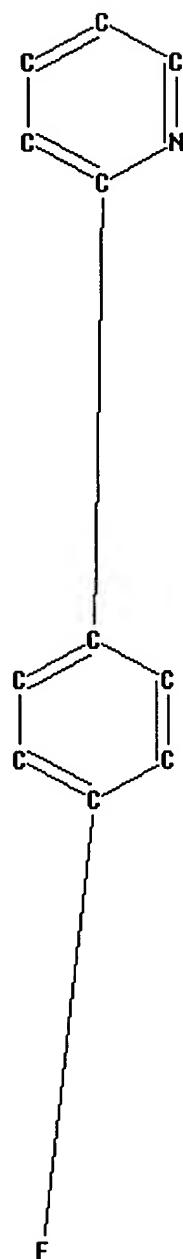
L21 9 S (L16 OR L17) AND (L19 OR IRIDIUM)

L22 40 S L20 NOT L21

Structure in Set L1



Structure in Set L12



L22 ANSWER 29 OF 40 HCAPLUS COPYRIGHT ACS on STN

AN 2003:155115 HCAPLUS

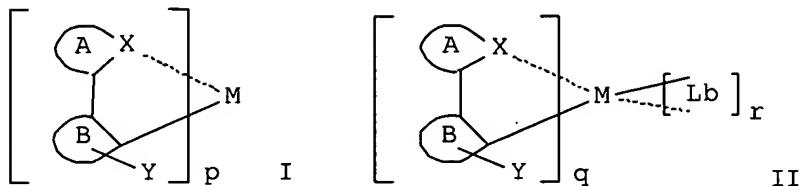
DN 138:212530

ED Entered STN: 28 Feb 2003

TI Luminescent organometallic compound and light emitting device

IN Fujii, Hiroyuki

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | US 2003040627 | A1 | 20030227 | US 2002-170396 | 20020614 |
| | JP 2004059433 | A2 | 20040226 | JP 2002-172832 | 20020613 |
| | CN 1397559 | A | 20030219 | CN 2002-124374 | 20020617 |
| PRAI | JP 2001-182507 | A | 20010615 | | |
| | JP 2002-165353 | A | 20020606 | | |
| OS | MARPAT 138:212530 | | | | |



AB Luminescent organometallic compds. are described by the general formulas I and II (A and B represent ring structures, M = a metal atom; X = a hetero atom other than C or H; Y = a electron-attracting group connecting to ring structure B; Lb = a unidentate or multidentate ligand; and p, q and r = pos. integers). Light-emitting devices with emitting layers incorporating the compds. are also described.

IT 10025-83-9, Iridium chloride 13569-63-6, Rhenium chloride

15635-87-7 58861-53-3 500229-85-6 500229-86-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(luminescent organometallic compds. with heteroaryl deriv. ligands and light-emitting devices using them)

IT 500295-47-6

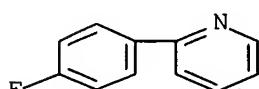
RL: DEV (Device component use); USES (Uses)
(luminescent organometallic compds. with heteroaryl deriv. ligands and light-emitting devices using them)

IT 58861-53-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(luminescent organometallic compds. with heteroaryl deriv. ligands and light-emitting devices using them)

RN 58861-53-3 HCAPLUS

CN Pyridine, 2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



1 of 2

page

[0055] Chemical Formula 51: bis(7-fluorobenzo[b]quinolinato-N,C¹⁰)acetylacetonato iridium(III)

[0056] Chemical Formula 52: bis(2-(4-fluorophenyl-1-yl)pyridinato-N,C²) platinum(II)

[0057] Chemical Formula 53: tris(2-(5-fluorophenyl-1-yl)pyridinato-N,C²) gold(III)

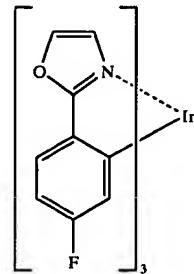
[0058] Chemical Formula 54: tris(2-(4-fluorophenyl-1-yl)benzo[c]quinolinato-N,C²) iridium(III)

[0059] Chemical Formula 55: tris(2-(4-cyanophenyl-1-yl)quinolinato-N,C²) iridium (III)

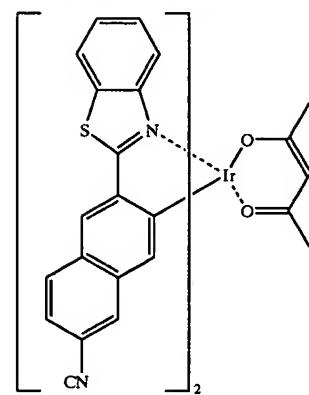
[0060] Chemical Formula 56: bis(2-(4-cyanophenyl-1-yl)benzothiazolato-N,C²)acetylacetonato iridium(III)

-continued

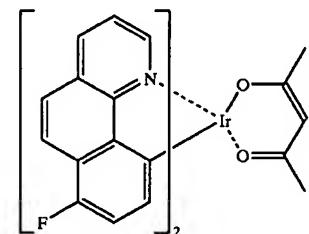
(Chem. Form.49)



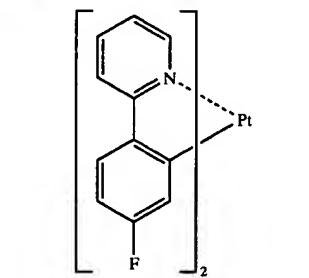
(Chem. Form.50)



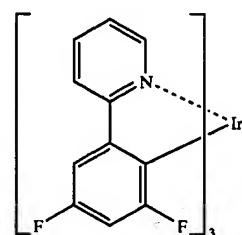
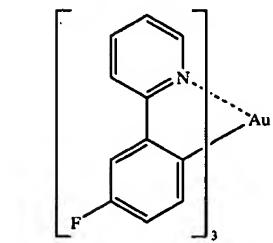
(Chem. Form.51)



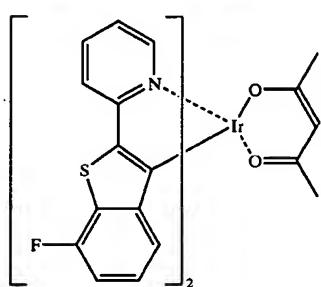
(Chem. Form.52)



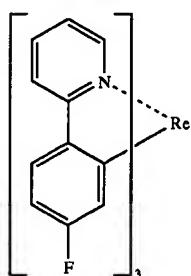
(Chem. Form.53)



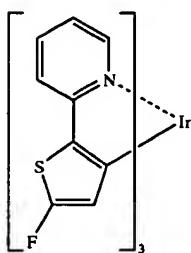
(Chem. Form.45)



(Chem. Form.46)



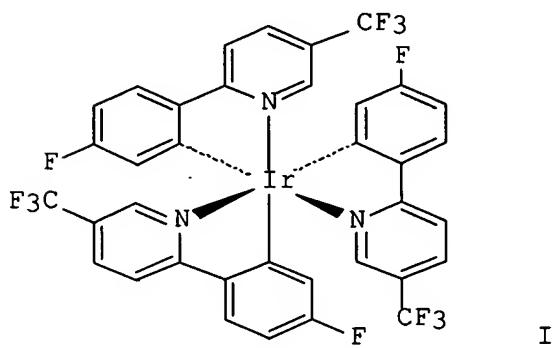
(Chem. Form.47)



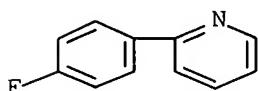
(Chem. Form.48)

Page 2
of 2

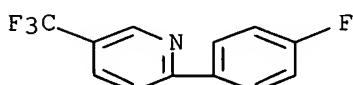
L22 ANSWER 40 OF 40 HCPLUS COPYRIGHT ACS on STN
 AN 2001:581384 HCPLUS
 DN 135:349716
 ED Entered STN: 10 Aug 2001
 TI New, efficient electroluminescent materials based on organometallic Ir complexes
 AU Grushin, Vladimir V.; Herron, Norman; LeCloux, Daniel D.; Marshall, William J.; Petrov, Viacheslav A.; Wang, Ying
 CS Central Research and Development, Experiment Station, E. I. DuPont de Nemours and Co., Inc., Wilmington, DE, 19880-0328, USA
 SO Chemical Communications (Cambridge, United Kingdom) (2001), (16), 1494-1495
 CODEN: CHCOFS; ISSN: 1359-7345



AB Reaction of aq. IrCl₃ with fluorinated 2-arylpypyridines in the presence of AgO₂CCF₃ afforded fifteen fac-tris-cyclometalated arylpyridine Ir complexes (e.g., I) exhibiting excellent processing and electroluminescent properties which can be fine-tuned via systematic control of the nature and position of the substituents on the arom. rings. Single-crystal x-ray structures were obtained for I and three other analogous cyclometalated arylpyridine Ir complexes. Nearly all the arylpyridine Ir complexes exhibited fully reversible redn. and oxidn. waves.
 IT 58861-53-3, 2-(4-Fluorophenyl)pyridine 370878-58-3,
 5-(Trifluoromethyl)-2-(4-fluorophenyl)pyridine
 (cyclometalation with aq. iridium chloride)
 RN 58861-53-3 HCPLUS
 CN Pyridine, 2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

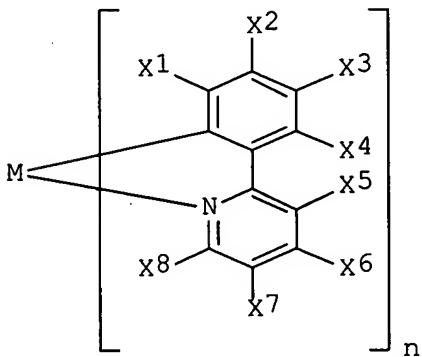


RN 370878-58-3 HCPLUS
 CN Pyridine, 2-(4-fluorophenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 37 OF 40 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:237969 DN 136:286688 ED Entered STN: 28 Mar 2002
 TI Electroluminescent display device with high brightness and efficiency
 comprising metal coordination compound
 IN Takiguchi, Takao; Mizutani, Hidemasa; Okada, Shinjiro; Tsuboyama, Akira;
 Miura, Seishi; Moriyama, Takashi; Igawa, Satoshi; Kamatani, Jun; Furugori, Manabu
 PA Canon Kabushiki Kaisha, Japan
 PATENT NO. KIND DATE APPLICATION NO. DATE

 PI EP 1191613 A2 20020327 EP 2001-122938 20010925
 EP 1191613 A3 20020717
 JP 2003146996 A2 20030521 JP 2001-284599 20010919
 US 2002064681 A1 20020530 US 2001-961075 20010924
 US 6815091 B2 20041109
 US 2005014025 A1 20050120 US 2004-912128 20040806
 PRAI JP 2000-292492 A 20000926
 JP 2000-292493 A 20000926
 JP 2000-358741 A 20001127
 JP 2000-358742 A 20001127
 JP 2001-255537 A 20010827
 JP 2001-284599 A 20010919
 US 2001-961075 A3 20010924
 OS MARPAT 136:286688



I

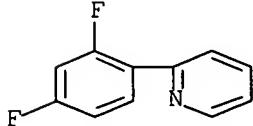
AB A luminescence device is principally constituted by a pair of electrodes and an org. compd. layer disposed between. The layer contains a metal coordination compd. represented by the formula I (M = Ir, Rh, Pd; n = 2, 3; X1-X8 = halogen, nitro, trifluoromethyl, C1-8-trialkylsilyl, C2-20-alkyl capable of including one or two non-neighboring methylene groups which can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH-, -C.tpbond.C- and capable of including hydrogen atom which can be replaced with fluorine atom; with the proviso that at least one of X1 to X8 is a substituent other than hydrogen atom, and X2 and X3 cannot be fluorine atom at the same time). The object of the present invention is to provide an electroluminescence device capable of providing a high-efficiency luminescent state at a high brightness (or luminance) for a long period while minimizing the deterioration in luminescence in energized state.

IT 391604-55-0P 405888-54-2P

(in synthesis of metal coordination compd.)

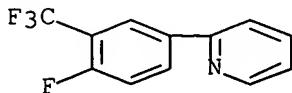
RN 391604-55-0 HCAPLUS

CN Pyridine, 2-(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)



RN 405888-54-2 HCAPLUS

CN Pyridine, 2-[4-fluoro-3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 36 OF 40 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:268568 HCAPLUS

DN 136:310035

ED Entered STN: 10 Apr 2002

TI Preparation of ortho-metatalated iridium complexes or their tautomers

IN Kimura, Keizo; Igarashi, Tatsuya

PA Fuji Photo Film Co., Ltd., Japan

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2002105055 A2 20020410 JP 2000-298529 20000929

PRAI JP 2000-298529 20000929

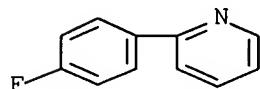
OS MARPAT 136:310035

AB Ir complexes I [Z11, Z12, Z21, Z22 = nonmetallic at. group required to form a 5-6-membered (un)substituted (condensed) ring; L1, L2 = direct bond, divalent group; Y1, Y2 = N, C; if Y1 = N, then Q1 = direct bond; if Y1 = C, then Q1 = double bond; if Y2 = N, then Q2 = direct bond; if Y2 = C, then Q2 = double bond] or their tautomers, useful as electroluminescent materials (no data), are prep'd. from Ir compd's. II (Z11, Z12, L1, Y1, Q1 = same as above; R1, R3 = aliph. group, aryl, heterocycl; R2 = H, substituent; R1 and R2 or R2 and R3 may be bonded together to form a ring) or their tautomers. II or their tautomers are prep'd. by hexahaloiridate(III) salts or hexahaloiridate(IV) salts via diiridium complexes III (X = halo; Z11, Z12, Q1, L1 = same as above) or their tautomers. A mixt. of K3IrCl₆, 2-phenylpyridine, and glycerol was stirred at 180.degree. for 2 h to give diiridium complex. MeOH soln. of NaOMe was added dropwise to a mixt. of the complex, AcCH₂COMe, and CHCl₃ at room temp. over 20 min and the reaction mixt. was further stirred at room temp. for 5 h to give II (R1 = R3 = Me, R2 = H, CQ1Y1Z11 = benzene ring; L1 = direct bond, Z12 makes a pyridine ring together with N). This acetylacetone complex was further treated with 2-phenylpyridine in glycerin at 170.degree. for 2 h to give tris(2-phenylpyridine) iridium.

IT 58861-53-3, 2-(4-Fluorophenyl)pyridine
(prepn. of ortho-metatalated iridium(III) complexes for electroluminescent devices)

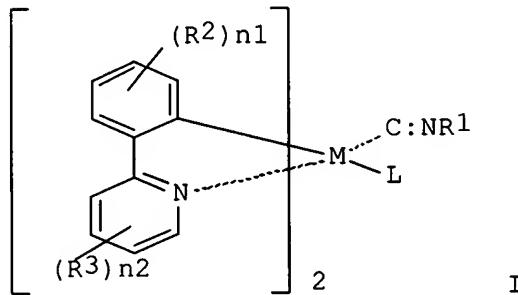
RN 58861-53-3 HCAPLUS

CN Pyridine, 2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

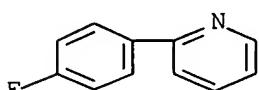


L22 ANSWER 32 OF 40 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:636629 HCAPLUS
 DN 137:192523
 ED Entered STN: 23 Aug 2002
 TI Transition metal-isonitrile complex luminescent materials and luminescent
 element using them
 IN Igarashi, Tatsuya
 PA Fuji Photo Film Co., Ltd., Japan
 PATENT NO. KIND DATE APPLICATION NO. DATE

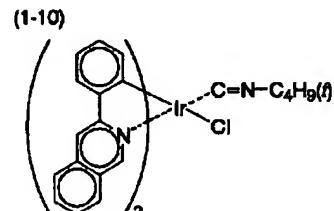
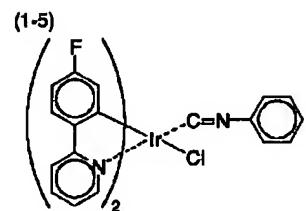
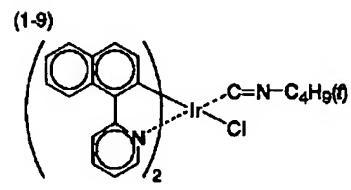
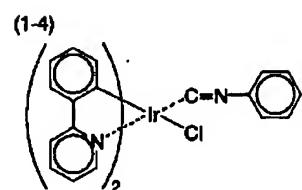
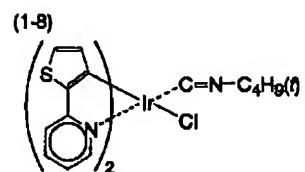
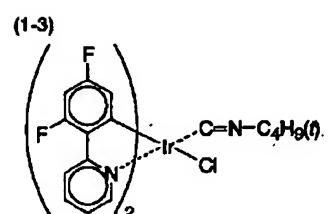
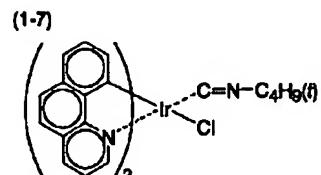
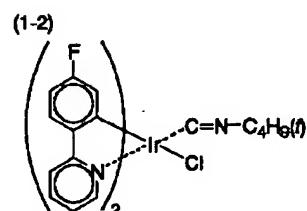
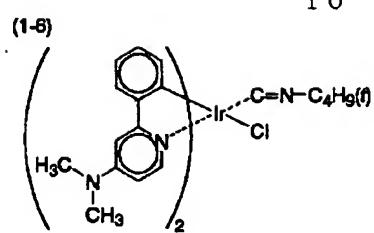
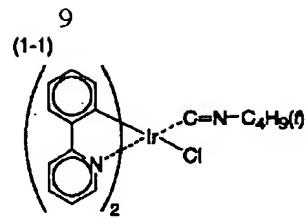
 PI JP 2002235076 A2 20020823 JP 2001-33684 20010209
 PRAI JP 2001-33684 20010209
 OS MARPAT 137:192523



AB The luminescent materials are transition metal complexes which include an isonitrile ligand and Ir, Ru, or Rh. The luminescent element contains the transition metal complexes in .gtoreq.1 of light-emitting layer and/or org. compd. layer. The luminescent element has high brightness and durability. Transition metal complexes represented by I (M = Ir, Ru, or Rh; R1-3 = substituent; L = monovalent ligand; n1, n2 = 0-4) are also claimed.
 IT 7188-38-7, tert-Butyl isonitrile 14024-41-0, Potassium **iridium** chloride (K3IrCl6) 58861-53-3, 2-(4-Fluorophenyl)pyridine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (transition metal-isonitrile complex luminescent material for luminescent element with high brightness and durability)
 IT 58861-53-3, 2-(4-Fluorophenyl)pyridine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (transition metal-isonitrile complex luminescent material for luminescent element with high brightness and durability)
 RN 58861-53-3 HCAPLUS
 CN Pyridine, 2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

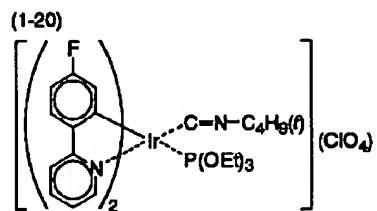
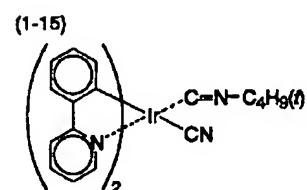
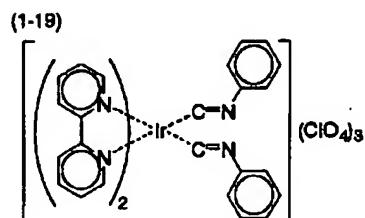
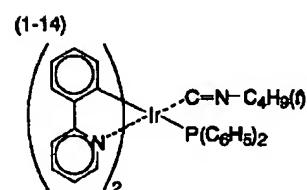
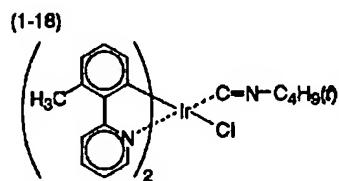
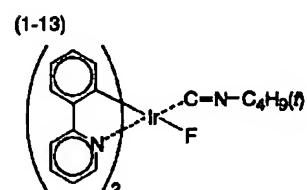
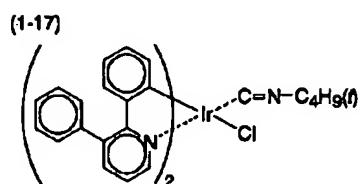
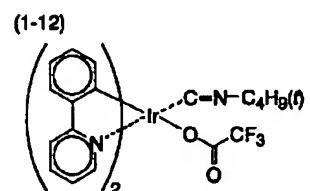
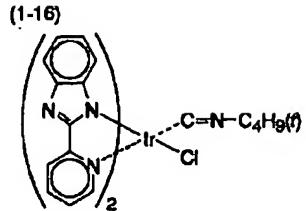
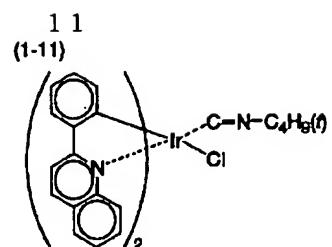


Sheet 1 of 5



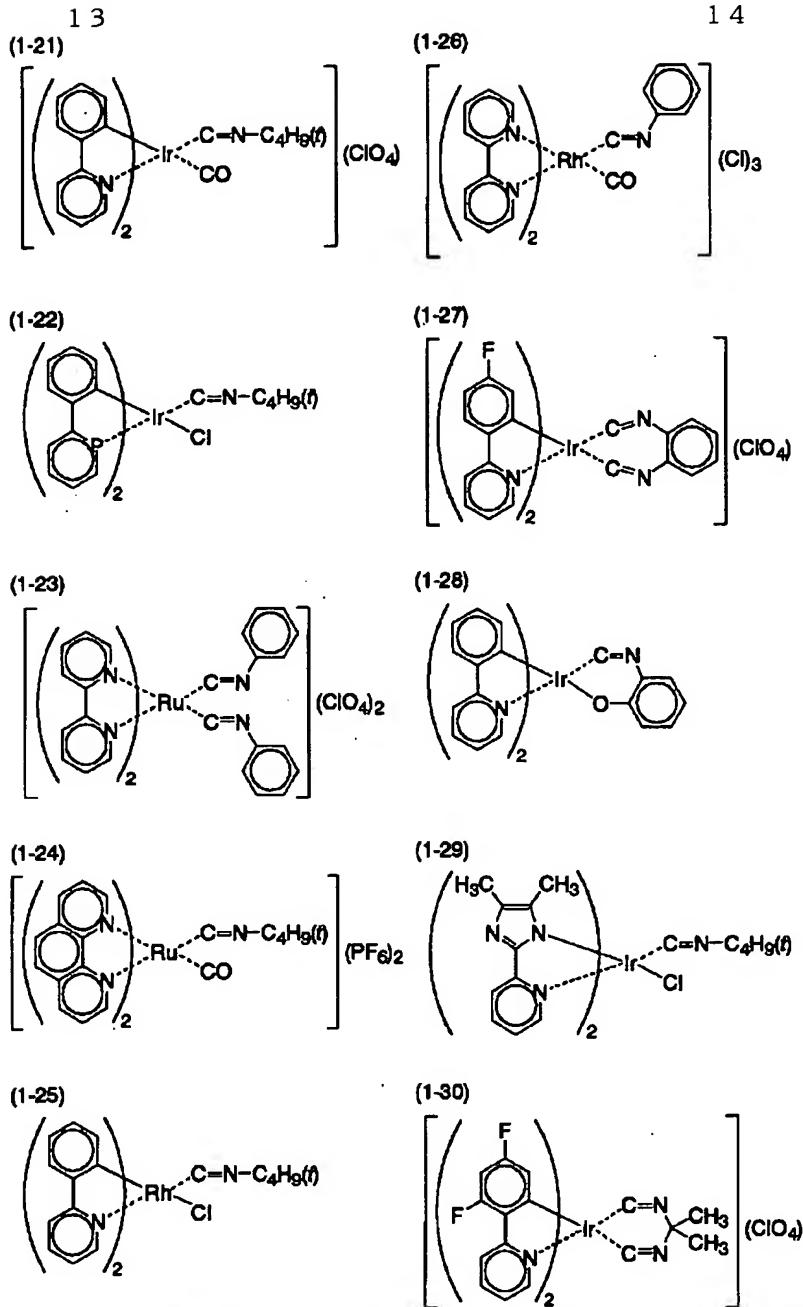
【0025】

* * 【化8】



【0026】

* * 【化9】



【0027】本発明で用いる遷移金属錯体は種々の手法で合成することができる。例えば、配位子又はその解離体と遷移金属化合物とを、室温以下又は加熱しながら混合して得ることができる。加熱する場合、通常の加熱以外にマイクロウェーブで加熱する手法も有効である。必要に応じて、溶媒（ハロゲン系溶媒、アルコール系溶媒、エーテル系溶媒、水等）や、塩基（無機塩基であっても有機塩基であってもよく、例えばナトリウムメトキサイド、t-ブトキシカリウム、トリエチルアミン、炭酸カリウム等）を用いてもよい。

【0028】[2]発光素子

本発明の発光素子は、一对の電極（陽極及び陰極）間に、発光層又は発光層を含む複数の有機化合物層を有する。この発光層又は複数の有機化合物層のうち少なくと

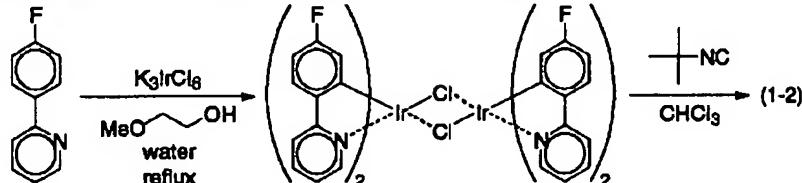
* も一層は、前述した本発明の発光素子用材料を含有する。本発明の発光素子のシステム、駆動方法、利用形態等は特に問わないが、本発明の発光素子用材料を発光材料又は電荷輸送材料として利用したものであるのが好ましい。代表的な発光素子として、有機EL（エレクトロルミネッセンス）素子を挙げることができる。

【0029】本発明の発光素子用材料を含有する層の形成方法は特に限定されず、抵抗加熱蒸着法、電子ビーム法、スパッタリング法、分子積層法、コーティング法、インクジェット法、印刷法、転写法等の方法が使用可能である。中でも、素子の特性及び製造面から抵抗加熱蒸着法及びコーティング法が好ましい。発光素子用材料を含有する層は塗布プロセスで成膜するのが特に好ましい。

【実施例】以下、実施例により本発明をさらに詳細に説明するが、本発明はそれらに限定されるものではない。

【0045】比較例1

40mgのポリ(N-ビニルカルバゾール)、12mgのPBD(2-(4-ビフェニル)-5-(4-t-ブチルフェニル)-1,3,4-オキサジアゾール)、及び1mgの下記化合物Aを2.5mlのジクロロエタンに溶解し、得られた溶液を洗浄した基板上にスピノコート(1500rpm、20sec)して有機層を形成した。得られた有機層の膜厚は98nmであった。次に得られた有機層上に発光面積が4mm×5mmとなるようにパターニングしたマスクを設置し、蒸着装置内でマグネシウム及び銀(マグネシウム:銀=10:1(モル比))を50nm共蒸着し、更に銀を50nm蒸着して、比較例1の発光素子を作成した。得られた発光素子に、東陽テクニカ製「ソースメジャーユニット2400型」を用いて直流定電圧を印加して発光させ、その発光輝度をトプコン社製「輝度計BM-8」*



3.5gの2-(4-フルオロフェニル)-ビリジン及び5gのK₃IrCl₆に、50mlの2-メトキシエタノール及び30mlの水を加え、還流下搅拌した。6時間搅拌した後、室温に冷却し、析出した黄色固体をろ別して3.4gの化合物aを得た。続いて0.2gの化合物aに20mlのクロロホルムを加え、更に0.06mlのt-C₄H₉NCを加えた。この溶液を還流下で4時間搅拌し、室温に冷却した。これをシリカゲルカラムクロマトグラフィー(展開溶媒:クロロホルム)で精製した後、クロロホルム/ヘキサン系で再結晶し、0.1gの遷移金属錯体(1-2)を得た。FAB-MSスペクトル(pos i 655, 620, 572, 535)により錯体(1-2)の生成を確認した。

【0048】化合物Aに替えて上記のように得た遷移金属錯体(1-2)を用いたこと以外は上記比較例1と同様に、実施例1の発光素子を作成した。得られた発光素子の発光輝度を上記比較例1と同様に測定した結果、青緑色発光が得られ、最高輝度は3500cd/m²であり、最低駆動電圧は10Vであった。また発光素子を大気下に1日放置し再度測定したところ、最高輝度は3000cd/m²であった。

【0049】実施例2

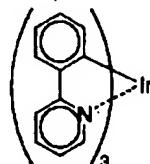
化合物Aに替えて遷移金属錯体(1-23)を用い、上記比較

*を用いて測定した。その結果、緑色発光が得られ、最高輝度は3300cd/m²であり、最低駆動電圧(発光が得られる駆動電圧の最低値)は11Vであった。また発光素子を大気下に1日放置し再度測定したところ、最高輝度は410cd/m²であった。

【0046】

【化10】

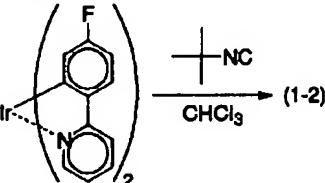
化合物A



【0047】実施例1

以下のように遷移金属錯体(1-2)を合成した。

【化11】



※例1と同様に発光素子を作成したところ、高輝度、高耐久性の赤色発光素子を得ることができた。

【0050】実施例3

1mgの化合物Aに替えて遷移金属錯体(1-1)及び(1-25)の混合物を用い、上記比較例1と同様に発光素子を作成したところ、高輝度、高耐久性の青緑色発光素子を得ることができた。

【0051】実施例4

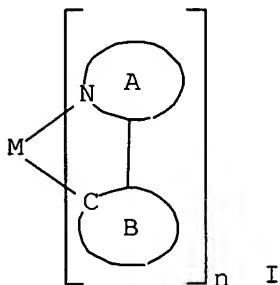
洗浄したITO基板を蒸着装置に入れ、TPD(N,N'-ジフェニル-N,N'-ジ(m-トリル)-ベンジン)を40nm蒸着し、この上に下記化合物Bと遷移金属錯体(1-2)を9対1の比率(質量比)で20nm共蒸着し、更にこの上に下記アゾール化合物Cを40nm蒸着して有機薄膜を形成した。次に得られた有機薄膜上に発光面積が4mm×5mmとなるようにパターニングしたマスクを設置し、蒸着装置内でマグネシウム及び銀(マグネシウム:銀=10:1(質量比))を50nm共蒸着し、更に銀を50nm蒸着して、実施例4の発光素子を作成した。得られた発光素子の発光輝度を上記比較例1と同様に測定した結果、青緑色発光が得られ、最高輝度は2400cd/m²であった。

【0052】

【化12】

L22 ANSWER 34 OF 40 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:429288 HCAPLUS
 DN 137:26192
 ED Entered STN: 07 Jun 2002
 TI Electroluminescent element and electroluminescent display device having
 the same
 IN Kamatani, Jun; Okada, Shinjiro; Tsuboyama, Akira; Takiguchi, Takao; Miura,
 Seishi; Noguchi, Koji; Moriyama, Takashi; Furugori, Manabu
 PA Canon Kabushiki Kaisha, Japan
 PATENT NO. KIND DATE APPLICATION NO. DATE

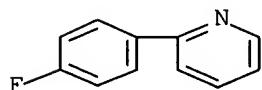
 PI WO 2002045466 A1 20020606 WO 2001-JP10477 20011130
 AU 2002022565 A5 20020611 AU 2002-22565 20011130
 EP 1349435 A1 20031001 EP 2001-999132 20011130
 US 2003059646 A1 20030327 US 2002-73011 20020212
 PRAI JP 2000-364650 A 20001130
 JP 2001-64203 A 20010308
 JP 2000-364350 A 20001130
 WO 2001-JP10477 W 20011130
 OS MARPAT 137:26192



AB The invention relates to a luminescent element having a cathode, an anode, and one or a plurality of layers of org. thin films which is arranged between them, characterized in that at least one of the layers is a light emitting layer which comprises a luminescent mol. of a metal coordination compd. having a basic structure represented by the following general formula I (A, B = ring group residue; M = IR, Pt, Rh, Pd) and having a substituent on at least one of cyclic groups A and B as a guest in a host material at an concn. which is 8 wt. % or greater and is greater than a concn. at which a luminescent mol. of a compd. having a structure analogous to the above and free of the substituent exhibits the max. luminous efficiency. The luminescent element is less susceptible to extinction by concn. even when used at a high concn. in a host material and thus exhibits high efficiency.

IT 58861-53-3P
 (electroluminescent element and electroluminescent display device
 having same)

RN 58861-53-3 HCAPLUS
 CN Pyridine, 2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 35 OF 40 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:294029 HCAPLUS
 DN 136:316681
 ED Entered STN: 19 Apr 2002
 TI Polymers having attached luminescent metal complexes and devices made with such polymers
 IN Periyasamy, Mookkan; Grushin, Vladimir; Petrov, Viacheslav A.; Herron, Norman; Radu, Nora Sabina
 PA E. I. Du Pont de Nemours & Co., USA
 PATENT NO. KIND DATE APPLICATION NO. DATE
 ----- ----- ----- -----
 PI WO 2002031896 A2 20020418 WO 2001-US31449 20011009
 WO 2002031896 A3 20030904
 CA 2423886 AA 20020418 CA 2001-2423886 20011009
 AU 2002015322 A5 20020422 AU 2002-15322 20011009
 EP 1364419 A2 20031126 EP 2001-983933 20011009
 JP 20044531850 T2 20041014 JP 2002-535182 20011009
 PRAI US 2000-238974P P 20001010
 WO 2001-US31449 W 20011009
 OS MARPAT 136:316681
 AB Org. electronic devices are described which comprise an emitting layer which comprises .gtoreq.1 functionalized polymer having a plurality of first-type functional groups, at least a portion of the functional groups being coordinated to .gtoreq.1 metal or metal-contg. complex, or in which the groups have a charge and are assocd. with .gtoreq.1 metal complex having an opposite charge. The emitting layers may also include org. charge transport materials. Selected polymer-metal complexes and salts are also described.
 IT 7439-88-5D, Iridium, compds., reaction products with polymers
 (metal-polymer complexes and salts and devices employing them)
 RN 7439-88-5 HCAPLUS
 CN Iridium (8CI, 9CI) (CA INDEX NAME)

Ir

IT 370878-58-3P
 (metal-polymer complexes and salts and devices employing them)
 RN 370878-58-3 HCAPLUS
 CN Pyridine, 2-(4-fluorophenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

